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ABSTRACT

One response to the disappointment from the curriculum reform of the 1960's has been an increased tendency towards more teacher autonomy in determining the curriculum. Seven modes of curriculum development in terms of the role of teachers have been identified. Listed from Center to Periphery these are: Centrally Based, Locally Centrally Based, Locally Based, School Based, Teacher Based, Pupil and Teacher Based, and Pupil Based. The main thesis of this article is that teacher's autonomy is possible in any one of the modes mentioned above. Moreover, teachers who have the benefit of centrally developed materials, and perhaps centrally offered support, as well as the freedom to choose from available options, may be more powerful and more effective than teachers who are left alone to exercise full responsibility and design the whole curriculum on their own. The different modes and their operation are illustrated, using the Israeli educational system in general and the Israel High School Biology Program in particular. (Author)

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TEACHER'S AUTONOMY IN A CENTRALLY DEVELOPED
AND CONTROLLED CURRICULUM

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Introduction

The Ministry of Education in Israel has recently taken deliberate action to encourage schools to undertake greater autonomy in every respect of school life.

One important aspect of schools and teachers autonomy may be the undertaking of increased responsibility in curriculum development. The growing tendency to allocate more and more responsibility in curriculum development to schools and teachers is not restricted to Israel. In fact, there has been a world-wide movement in this direction, much of it as a response to disappointment from the impact of centrally developed national programs in the 1960's and the 1970's (e.g. Holt, 1983; Skilbeck, 1984-5). It appears as if the curriculum field has completed a full circle. It started with Tyler's (1949) basic principles of curriculum development at the school level, and now, about forty years later, it is moving from the Centre back to the Periphery. The arguments in favour of School Based Curriculum Development have been discussed in many occasions (e.g. Keiny, 1984-5; Sabar, 1982; Skilbeck, 1976). There is no doubt that teachers participation in curriculum development can be a fruitful and desirable experience which may contribute significantly to the professional development of teachers. At the same time, it is evident that most teachers have neither the time, nor the expertise to take over the major tasks which are now being accomplished

by curriculum development centres. Moreover many teachers are not willing to add responsibilities to their already overcrowded agenda. In many cases teacher developed materials have been found to be of rather low quality (e.g. Eden, Moses & Amiad, 1984-5). While the process of development is certainly useful for those teachers engaged in it, the products leave much to be desired. Hence, as far as other teachers are concerned there is a much higher probability of obtaining high quality materials when these are developed in curriculum development centers which engage experts and possess superior means and facilities.

Silberstein (1984-5) argues that different approaches to teacher education with increased opportunities to experience curriculum analysis and development will result in a better prepared teacher who may have the knowledge and skills needed for carrying out continuous dialogue about curriculum among themselves as well as with curriculum development experts. In this sense the teachers will become more autonomous and feel more confident in making curricular decisions.

In a recent international seminar on School Based Curriculum Development in Tel Aviv University, a rather interesting picture has emerged as a result of the deliberations regarding modes of curriculum development (see Figure 1).

Insert Figure 1 about here

A brief description of each mode presented in Figure 1 follows:

- CeBCD - Centrally Based Curriculum Development refers to programs developed in a national centre from which they are distributed to schools. Teachers may implement such programs with more or less faithfulness to the intentions of the developers. A high level of faithfulness has been designated as fidelity (Fullan & Pomfret, 1977). On the other hand, when teachers modify the program to match their own preferences and their students' needs, the program undergoes mutual adaptation (ibid.). As we shall see, mutual adaptation may be built into a given curriculum.
- LCeBCD - Locally Centrally Based Curriculum Development refers to programs developed when a number of schools from different localities get together to design a curriculum to be used in their own schools. These schools often work with the help of experts operating by guidelines or a model that have been developed in a national centre (e.g. the program My Own Town: Eden, Moses & Amiad, 1984-5).
- LBCD - Locally Based Curriculum Development refers to programs developed by a school district or by a local authority, when a number of schools from that

locality get together to develop a program, based on their own initiative.

SBCD - School Based Curriculum Development refers to programs developed in a particular school. As shown in Figure 1 there are several options which may be employed. Tyler's (1949) model or the one described by Holt (1983) involve the whole school and may be designated as school centred curriculum. Somewhat less comprehensive is the case when a few teachers from different disciplines at the same school get together to design an integrated program, and the least comprehensive is the case of a group of teachers in one subject who design a common course. In each of the three options just described, it is possible that the developers follow an externally (e.g. nationally) prescribed syllabus or alternatively design their own syllabus.

TBCD - Teacher Based Curriculum Development occurs when an individual teacher develops his/her own course. This mode is most common at the university level. In schools, however, teachers rarely design original programs from scratch although every teacher adapts and modifies existing programs to some extent. One finds more often teachers who design a unit to supplement a given course.

- PTBCD - Pupils and Teacher Based Curriculum Development occurs when the teacher and her pupils develop together a program. For example, the teacher collects an abundance of learning modules from which individual students may choose and build their own courses with the help and guidance of the teacher.
- PBCD - Pupils Based Curriculum Development takes place when pupils undertake individual projects which they pursue pretty much on their own, or with help they actively seek from agents other than the teacher.

One may view the modes presented above as a continuum along which the influence of the Centre gradually decreases and correspondingly teacher's autonomy increases. An interesting question may be raised regarding the power in terms of learning effectiveness that teachers actually exert under the different modes. It may be thought that the greater the freedom the stronger the power. However, in reality it is conceivable that teachers who have the benefit of centrally developed materials and perhaps centrally offered support as well as the freedom to choose from available options, may be more powerful and more effective than teachers who are left alone to exercise full responsibility and complete autonomy.

The Case of the Israel High School Biology Program (IHBP)

The purpose of the remaining of this article is to examine the teachers' autonomy in a particular centrally developed curriculum, namely the Israel High School Biology Program. The thesis put forward is that it is not necessary to abandon or devalue centrally developed and/or controlled curricula in order to promote the teacher's autonomy. The reason for choosing the IHBP is that this has been an evolving program with built-in provisions for teachers' autonomy which may be described as guided freedom. Another reason is that the IHBP has been operating within an educational system which consciously creates opportunities for school and teacher autonomy. We begin by describing the constraints imposed on teachers and move on to show how in spite of these constraints, teachers may exercise freedom and autonomy.

The system: syllabus and matriculation examination constraints

The syllabus in Israel is prescribed by the the Ministry of Education on the basis of the recommendations offered by specially nominated subject matter committees. The Biology Syllabus Committee, for example, is chaired by the Head of the Israeli Science Teaching Centre and includes the chief high school Biology Inspector, the chief elementary and junior high Science Inspector, the Director and two other

members of the High School Biology Project at the Israel Science Teaching Centre, three members of the biology team of the National Curriculum Development Centre, two high school biology teachers, two tutors training high school biology teachers in the university and two university scientists: a human-animals physiologist and a plant physiologist. The subject matter committee produces lists of aims and topics to be taught at each grade level and recommends time allocations for practical laboratory work and for outdoors learning. It also specifies general approaches, for example: the teaching of biology as inquiry, or the emphasis on major themes such as evolution or the complementarity between structure and function, as well as the treatment of issues such as social and moral implications of biological research. No particular textbooks are prescribed. However, the Israeli Science Teaching Centre publishes textbooks, modules and other instructional materials which match the prescribed syllabus. In addition, individual authors are free to offer their textbooks which are released for use, subject to quality control by the Ministry of Education. For certain portions of the curriculum such as analysis of original research papers, or outdoor biology, there are no official instructional materials.

At the end of 12th grade all high school students who are eligible, sit for external matriculation examinations designated

as the Bagrut examinations. Those who pass these examinations receive a Bagrut Certificate, which is a pre-requisite for admission to institutes of higher education, as well as for getting many kinds of jobs. No wonder that these examinations and their specific requirements which are prescribed by the Ministry of Education have a decisive influence on what is taught, how it is taught and how students and teachers time and efforts are invested.

Teachers' autonomy

When the centrally prescribed curriculum and the Bagrut are considered together it would appear as if teachers are heavily constrained and very little room is left for autonomy. To some extent this is certainly true. However, both curriculum committees and the Ministry have taken a variety of steps which, in effect, provide teachers with a lot of freedom. We shall illustrate the nature of this "guided freedom"* using high school biology as an example.

High school biology teachers enjoy guided freedom of two kinds: (a) that built into the educational system in

* I am indebted to Professor Jerald Zaccharias for this term.

general, and (b) that offered particularly in biology.

Freedom built into the system (not specific to biology)

(a) There is a general Ministry guideline of which unfortunately, teachers rarely take full advantage. According to this guideline local communities including individual schools, and their teachers are free to follow their own chosen topics, outside the prescribed syllabus for up to 25% of class time.

(b) In general, schools and teachers are free to choose the textbooks and other learning materials as long as they match the syllabus. The Ministry does exercise quality control on textbooks thus providing a list of approved textbooks to choose from.

(c) Although the requirements for the Bagrut examinations are highly specific, schools, teachers and students still have some important opportunities for choices:

1. Within the regular Bagrut requirements there are built-in choices (e.g. a large list of writers and books to choose from for the Bagrut examination in literature).
2. Students may substitute a Bagrut examination in one subject by an individual research project conducted for at least one whole year, usually

under supervision of an expert (e.g. a musician, a scientist, a physician, etc.). The written report which results of such a project is graded by an external examiner who also meets the candidate for an oral conversation. About 500 out of 20,000 candidates choose this option every year.

3. Schools and teachers are free to design and propose "special programs". These programs may represent either unique aspects of subjects which offer a regular examination, or areas such as music, dance and psychology for which no regular Bagrut examination is offered. In all of these cases, the school teacher designs the examination which is subsequently checked for quality and adequacy by a qualified Inspector of the Ministry of Education. About one hundred out of 600 high schools in Israel have designed such special programs in at least one subject in the year 1984.
4. Beginning in 1978, the structure of the Bagrut examinations has changed to become much more flexible than previously. Every subject is now offered in several levels designated as 2, 3, 4 and 5 units where each unit corresponds to three weekly lessons per one year. For example, 3 units presume that a student has studied that particular

subject during the upper three years in high school for a total of 9 hours per week, or 270 hours altogether. In order to be qualified for a Bagrut Certificate, the candidate has to be tested on at least 21 units. Part of the requirements are mandatory (e.g. Hebrew, English, Mathematics, at certain levels) but the rest is determined by individual schools and even, where technically feasible, by individual students. Theoretically, any student may build his/her own individual program. In reality, the students choose from a variety of options offered by their school.

5. While in many countries, such as the United Kingdom, the final grade of a student is determined by his/her performance on the external final examinations, in Israel these examinations determine only one half of the final score. The other half is contributed by the teacher and represents the student work in grades 11 and 12 based on any criteria that individual teachers choose to employ. This kind of power contributes very significantly to teachers autonomy.

Particular features of the biology program

Of course biology teachers and students may take advantage of the general options already described. Indeed, about 40% of the total individual projects which substitute for one Bagrut examination in 1984, have been carried out in biology on a wide range of topics based on literature reviews, laboratory work and outdoors investigations. Since the introduction of the new flexible structure of the matriculation examinations, the number of students who elect to be examined in biology (which is not a mandatory subject) has steadily increased every year, so that by 1984 40% of the cohort group were examined in biology. Of these 7000 students, about 4000 take the highest level (5 units). In addition to the general provisions for choices, described in the previous section, biology teachers and students enjoy some special opportunities which promote teachers' autonomy.

1. Curriculum patterns. Different portions of the curriculum fit idfferent patterns. These will be described and categorized according to the modes presented in Figure 1.

- 1.1 Prescribed topics with prescribed coverage. This part corresponds to the content of the Israeli version of Biological Science: An Inquiry Into Life (based on the U.S. BSCS Yellow Version). It provides a survey of major concepts, principles and phenomena at a rather elementary level. In addition it

requires the development of certain intellectual and manipulative inquiry skills (CeBCD).

- 1.2 Teachers are encouraged to choose three out of six broad areas for indepth study (energy transformations, reproduction, hormonal and nervous regulation, genetics, microbiology, ecology and evolution). No official texts are recommended for these topics (SBCD).
- 1.3 Teachers are offered with an extensive repatoire of inquiry oriented laboratory investigations (based on practical Bagrut examinations of previous years) from which they may choose what they like (TBCD).
- 1.4 Analysis of research papers is required; however, the choice of particular papers is left to the teachers (TBCD).
- 1.5 Identification of plants with the aid of a key is required; however, the particular plants, the particular time, the place, the instructional strategies and even the administration of the pertinent matriculation test is left entirely to the teachers (TBCD).
- 1.6 Every student is required to carry out an individual ecology project which spreads over a period of several months. The choice of specific topics is

usually left to the individual students. The organization, guidance and assessment of the students final reports, is done by the teachers (PTBCD).

- 1.7 About 10% of the cohort group choose to substitute a regular matriculation examination with an individual research project which is usually carried out without reference to the class teacher (PBCD).
2. Teachers are invited to participate in the design, administration and assessment of the matriculation examination. Their role and involvement differs in different parts of this examination which consists of paper and pencil as well as practical components.
 - 2.1 Paper and pencil test. This accounts for 60% of the total matriculation score. Only a few teachers participate in the design of this test; however, any teacher who has acquired several years of teaching experience is invited to participate in the assessment of the student papers.
 - 2.2 Plant identification test. This accounts for 5% of the total matriculation score; it is administered and assessed by the class teacher according to centrally prescribed guidelines.
 - 2.3 Inquiry oriented practical laboratory test (see Tamir, 1974). The test accounts for 20% of the

total matriculation score; it is designed centrally and administered to all the examinees all over the country on the same day by the class teachers who also assess their students manipulative work. In addition, many teachers serve as external examiners of student papers which are assessed much like the paper and pencil tests described in 2.1 above.

- 2.4 The ecology project described under 1.6 above also serves as a basis for an oral test which accounts for 15% of the total matriculation score. Only teachers serve as external examiners in these oral tests. In this capacity they play an important role in setting standards for this component of the curriculum.

Conclusion

Based on the analysis of the IHBP in terms of modes of curriculum development and the roles that teachers actually play within the Israeli educational system in general, and the IHBP in particular, it may be concluded that for all practical purposes, teacher autonomy must not be necessarily associated with non-centralistic system. If an effective dialogue is maintained between teachers, administrators, inspectors, curriculum developers and boards of examination

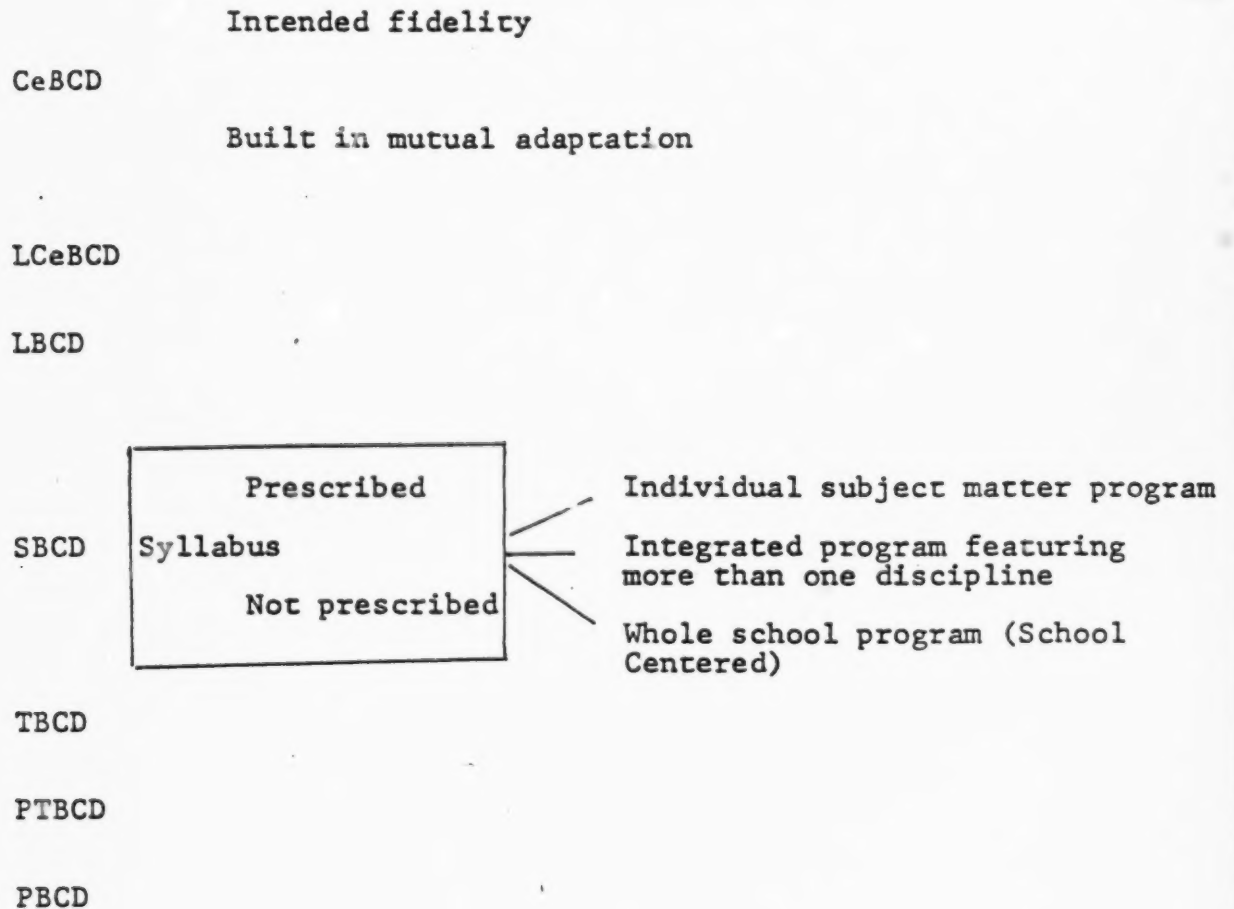
the operational curriculum, that which is actually implemented in the classroom and experienced by students, can greatly benefit. While the teachers' autonomy may suffer a bit under circumstances similar to those which exist in the IHBP, on the average, their power and potential effectiveness increase considerably as they take advantage of the contributions of other agents in the system. Most often the kind of guided freedom described in this paper will work better than total freedom.

References

- Ariav, T. (1984-5), Centralized school based curriculum development: A case study of Jewish education in the U.S.A., Paper presented at the International Seminar on School Based Curriculum Development, Tel Aviv University.
- Eden, S., Moses, S. & Amiad, R (1984-5), Interaction between the "Centre" and the "Periphery", Paper presented at the International Seminar on School Based Curriculum Development, Tel Aviv University.
- Fullan, M. & Pomfret, A. (1977), Research on curriculum and instruction implementation, Review of Educational Research, 47, 335-397.

- Holt, M. (1983), Curriculum workshop: An introduction to whole curriculum planning, London, Rutledge & Kegan Paul.
- Keiny, S. & Weiss, Z. (1984-5), Developing an environmental education curriculum: A case study of SBCE, Paper presented at the International Seminar on School Based Curriculum Development, Tel Aviv University.
- Sabar, N. (1982), School based science curriculum: Myth or reality? European Journal of Science Education, 5, 457-462.
- Silberstein, M. (1984-5), Curriculum development in Israel in the eighties: A dialogue between teachers and professional developers, Paper presented at the International Seminar on School Based Curriculum Development, Tel Aviv University.
- Skilbeck, M. (1976), School based curriculum development, in J. Walton & J. Welton (Eds.), Rational curriculum planning, London, Ward Lock Educational.
- Skilbeck, M. (1984-5), School based curriculum development with reference to central curriculum, policies, programs and projects, Paper presented in the International Seminar on School Based Curriculum Development, Tel Aviv University.
- Tamir, P. (1974), An inquiry oriented laboratory examination, Journal of Educational Measurement, 49, 193-197.
- Tyler, R. (1949), Basic principles of curriculum and instruction, Chicago, University of Chicago Press.

Figure 1: Modes of Curriculum Development



Ce = centrally; C = curriculum; B = based; D = development;

S = school; L = locally; T = teacher; P = pupil

Abstract

One response to the disappointment from the curriculum reform of the 1960's has been an increased tendency towards more teacher autonomy in determining the curriculum. Seven modes of curriculum development (C.D.) in terms of the role of teachers have been identified. Listed from Center to Periphery these are: Centrally Based, Locally Centrally Based, Locally Based, School Based, Teacher Based, Pupil and Teacher Based, and Pupil Based. The main thesis of the article is that teacher's autonomy is possible in any one of the modes mentioned above. Moreover, teachers who have the benefit of centrally developed materials, and perhaps centrally offered support, as well as the freedom to choose from available options, may be more powerful and more effective than teachers who are left alone to exercise full responsibility and design the whole curriculum on their own.

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